

REMARKS

Claims 72, 77-79, 82, 89, 94-96, 99, 104-106, 108, 115, 120-122, and 124 are amended and claims 74-76 and 101-103 are canceled herein. Claims 72, 73, 77-100, and 104-124 will be pending following entry of the amendments.

The following remarks are responsive to the Office action dated January 20, 2006.

Provisional Obviousness-type Double Patenting Rejection

Applicants note the provisional obviousness-type double patenting rejections of claims 72-124 based on claims 1-23 of U.S. Patent Application Serial No. 10/748,616 in view of U.S. Patent No. 6,645,190 (Olson et al.). However, the '616 application is directed to a head harness for a night vision device and does not appear to be relevant to the subject matter recited in the claims pending in this application. Moreover, the '616 application has issued as U.S. Patent No. 6,912,727. As a result, it appears that the '616 application was cited inadvertently. Accordingly, applicants respectfully request the correct application serial number or, if not in error, confirmation that the '616 application is in fact the reference relied on by Office.

Response to Claim Rejections

Claim 72

Claim 72 as amended herein is directed to an absorbent article comprising a liner, an outer cover and an absorbent body disposed between the liner and the outer cover, the outer cover at least in part comprising a substrate having a graphic thereon, said graphic comprising a non-phosphorescent ink applied to the substrate to define a non-phosphorescent region of said graphic and a phosphorescent ink applied to the

substrate to define a phosphorescent region of said graphic, at least a portion of the non-phosphorescent region and at least a portion of the phosphorescent region being in overlapping relationship with each other so as to define an overlapping region of said graphic wherein when the overlapping region is exposed to light sufficient to cause phosphorescence of the phosphorescent region said at least a portion of the phosphorescent region phosphoresces to render said overlapping region visible in the absence of light, said non-phosphorescent region comprising a plurality of discrete dots of the non-phosphorescent ink applied to the substrate, said phosphorescent region comprising a plurality of discrete dots of the phosphorescent ink applied to the substrate, the discrete dots of phosphorescent ink being interspersed with the discrete dots of non-phosphorescent ink in the overlapping region of the graphic.

As one example, in the embodiment of Fig. 5A of the present application a graphic in the form of a firefly 61 is made up of a plurality of discrete dots 510 of non-phosphorescent ink (shown as solid dots in Fig. 5a), which define a non-phosphorescent region of the firefly. In a rear abdomen 302 of the firefly, dots 510 of the non-phosphorescent ink (shown as solid dots in Fig. 5a) are interspersed with discrete dots 512 of phosphorescent ink to define the overlapping region of the graphic 61. The overlapping region is thus visible as a colored graphic in normal light conditions and after exposure to light sufficient to cause the phosphorescent ink to phosphoresce, glows in a subsequent absence of light. As a result of the interspersed of phosphorescent and non-phosphorescent ink dots in the overlapping region (e.g., as opposed to the ink dots overlaying or underlying each other), both the phosphorescent region and

non-phosphorescent region of the graphic are more vivid and therefore more appealing to the wearer.

Amended claim 72 is submitted to be nonobvious in view of and patentable over the references of record, and in particular U.S. Patent No. 6,645,190 (Olson et al.) in view of WO 98/40223 (Demers et al.), in that whether considered alone or in combination the references fail to teach or suggest an absorbent article having a graphic that includes a phosphorescent region of discrete dots of phosphorescent ink overlapping a non-phosphorescent region of discrete dots of non-phosphorescent ink wherein the discrete dots of phosphorescent ink are interspersed with the discrete dots of non-phosphorescent ink in the overlapping region of the graphic.

Olson et al. (with reference to Figs. 1-3 thereof) disclose training pants 20 having an outer cover 40, a bodyside liner 42, and an absorbent assembly 44 disposed between the outer cover and the bodyside liner. The outer cover 40 of the pants 20 has a graphic 60 including a primary pictorial image 61, waist ruffles 62, and leg ruffles 64.

Olson et al. (as recognized in the Office action) fail to disclose or suggest the use of phosphorescent ink, let alone the interspersion of discrete dots of phosphorescent ink with discrete dots of non-phosphorescent ink in an overlapping region of the graphic.

Demers et al. disclose a substrate having a non-visible indicia formed using at least two fluorescent and/or phosphorescent inks for proving the authenticity of the substrate (among other uses). As an example, as shown in Fig. 1 of Demers et al., a driver's license 10 comprises a card 12 laminated within a pouch 14. The card 12 has visible indicia thereon including a portrait 16, a license number 18, a social

security number 20, a class 22 of the license, an expiration date 24, and a signature 26. As shown in Fig. 2, the driver's license 10 also has a non-visible image 30 of a seal of a government body issuing the license. The non-visible image 30 is printed on an inner surface of the pouch 14 using fluorescent ink, which can be seen when the license is held under an UV lamp.

Demers et al. particularly teach that the non-visible image is hidden by overlaying or underlying the visible image on the same area of the substrate as the non-visible image as long as the visible image does not obscure the non-visible image when the image is excited. Page 7, lines 14-18. Alternatively, the non-visible image may be hidden by being lightly over-printed with the same image in visible colors. Page 7, lines 18-21.

Demers et al. further disclose that in one preferred form of the invention, the same indicia is printed in the same or similar colors in both the visible and non-visible images, rendering it almost impossible to detect the presence of the fluorescent image. Page 7, lines 22-25. To achieve such an arrangement, Demers et al. teach printing (e.g., using an ink jet) the visible and fluorescent inks in a single pass onto the same part of the document. Page 8, lines 3-6. Demers et al. therefore fail to teach or even suggest the interspersion of discrete dots of phosphorescent ink with discrete dots of non-phosphorescent ink in an overlapping region of the graphic. In particular, Demers et al. teach the opposite, that is, overlaying or overprinting the visible and non-visible images so as to hide the non-visible image. While Demers et al. do teach forming discrete dots of various non-overlapping colors of the fluorescent (i.e., non-visible) ink itself (see page 9, lines 1-5), there is no suggestion for

interspersing these dots with discrete dots of the non-visible ink. In fact doing so would be against the teachings of Demers et al. because the non-visible image would not be hidden by the visible image.

Since Olson et al. and Demers et al. each fail to teach or suggest an absorbent article having discrete dots of phosphorescent ink interspersed with discrete dots of non-phosphorescent ink in an overlapping region of the graphic as recited in amended claim 72, a combination of these references also fails to teach or disclose such a feature. Accordingly, amended claim 72 is submitted to be nonobvious and patentable over the references of record including Olson et al. in view of Demers et al.

Claims 73 and 77-93 depend directly or indirectly from amended claim 72 and are submitted to be patentable over the references of record for the same reasons.

Claim 84

Claim 84 depends indirectly from claim 72 and recites that the background defined by the non-phosphorescent region is a vignette. As explained at page 32, paragraph [0094] of the present specification, a vignette is a gradual change in the shades of color and/or gradual change in glow intensity from one portion of the background to another. Neither Olson et al. nor Demers et al. disclose or suggest such a feature. For these additional reasons, claim 84 is submitted to be further patentable over the references of record.

Claim 86

Claim 86, which depends directly from claim 72, further recites that the non-phosphorescent region defines a detail of the graphic, the phosphorescent region defining a detail that

is a mirror image of the detail defined by the non-phosphorescent region and is in at least partially overlapping relationship with the detail defined by the non-phosphorescent region, the detail defined by the phosphorescent region being rotated relative to the detail defined by the non-phosphorescent region.

Fig. 6 of the present application, for example, shows a detail of a graphic 61 (i.e., a clown's face) defined by the non-phosphorescent region 202. The phosphorescent region 204 is a mirror image of the detail arranged in overlapping relationship with the non-phosphorescent region. In the illustrated embodiment, the mirror image detail defined by the phosphorescent region 204 is rotated approximately 180 degrees relative to the detail defined by the non-phosphorescent region 202.

Neither Olson et al. nor Demers et al. disclose or suggest the features of claim 86. Accordingly, claim 86 is submitted to be further patentable over the references of record for these additional reasons.

Claim 94

Amended claim 94 is directed to an absorbent article comprising a liner, an outer cover and an absorbent body disposed between the liner and the outer cover, the outer cover at least in part comprising a substrate having a graphic thereon, said graphic comprising a colored non-phosphorescent region and a phosphorescent region, at least a portion of the non-phosphorescent region and at least a portion of the phosphorescent region being in overlapping relationship with each other so as to define an overlapping region of said graphic wherein when the overlapping region is exposed to light sufficient to cause phosphorescence of the phosphorescent

region said at least a portion of the phosphorescent region phosphoresces to render said overlapping region visible in the absence of light, the non-phosphorescent region being defined by a plurality of discrete dots of a non-phosphorescent ink being applied to the substrate, the phosphorescent region being defined by a plurality of discrete dots of a phosphorescent ink applied to the substrate, the discrete dots of phosphorescent ink being interspersed with the discrete dots of non-phosphorescent ink in the overlapping region of the graphic.

Amended claim 94 is submitted to be nonobvious in view of and patentable over the references of record, and in particular U.S. Patent No. 6,645,190 (Olson et al.) in view of WO 98/40223 (Demers et al.), for the same reasons as set forth above with respect to claim 72. That is, whether considered alone or in combination the references fail to teach or suggest an absorbent article having discrete dots of phosphorescent ink interspersed with discrete dots of non-phosphorescent ink in an overlapping region of the graphic.

Claim 95 depends from amended claim 94 and is submitted to be patentable over the references of record for the same reasons as claim 94.

Claim 96

Amended claim 96 is directed to an absorbent article comprising a liner, an outer cover and an absorbent body disposed between the liner and the outer cover, the outer cover at least in part comprising a first substrate, a second substrate in overlaid relationship with the first substrate, and a graphic comprising a colored non-phosphorescent region and a phosphorescent region, at least a portion of the colored non-phosphorescent region and at least a portion of the phosphorescent region being in overlapping relationship with

each other so as to define an overlapping region of said graphic wherein when said overlapping region is exposed to light sufficient to cause phosphorescence of the phosphorescent region, said at least a portion of the phosphorescent region phosphoresces to render said overlapping region visible in the absence of light, one of said first and second substrates having the colored non-phosphorescent region thereon and the other one of said first and second substrates having the phosphorescent region thereon, the non-phosphorescent region being defined by a plurality of discrete dots of a non-phosphorescent ink being applied to one of said first and second substrates, the phosphorescent region being defined by a plurality of discrete dots of a phosphorescent ink applied to other one of said first and second substrates, the discrete dots of phosphorescent ink being interspersed with the discrete dots of non-phosphorescent ink in the overlapping region of the graphic.

Amended claim 96 is submitted to be nonobvious in view of and patentable over the references of record, and in particular U.S. Patent No. 6,645,190 (Olson et al.) in view of WO 98/40223 (Demers et al.), for substantially the same reasons as set forth above with respect to claim 72. That is, whether considered alone or in combination the references fail to teach or suggest an absorbent article having discrete dots of phosphorescent ink being interspersed with the discrete dots of non-phosphorescent ink in the overlapping region of the graphic.

Claims 97 and 98 depend directly or indirectly from amended claim 96 and are submitted to be patentable over the references of record for the same reasons as claim 96.

Claim 99

Amended claim 99 is directed to an absorbent article comprising a liner, an outer cover and an absorbent body disposed between the liner and the outer cover, the outer cover at least in part comprising a substrate having a graphic thereon, said graphic comprising a non-photoluminescent ink applied to the substrate to define a non-photoluminescent region of said graphic and a photoluminescent ink applied to the substrate to define a photoluminescent region of said graphic, at least a portion of the non-photoluminescent region and at least a portion of the photoluminescent region being in overlapping relationship with each other so as to define an overlapping region of said graphic wherein when the overlapping region is exposed to light sufficient to cause luminescence of the photoluminescent region said at least a portion of the photoluminescent region luminesces, said non-photoluminescent region comprising a plurality of discrete dots of the non-photoluminescent ink applied to the substrate, said photoluminescent region comprising a plurality of discrete dots of the photoluminescent ink applied to the substrate, the discrete dots of photoluminescent ink being interspersed with the discrete dots of non-photoluminescent ink in the overlapping region of the graphic.

Amended claim 99 is submitted to be nonobvious in view of and patentable over the references of record, and in particular U.S. Patent No. 6,645,190 (Olson et al.) in view of WO 98/40223 (Demers et al.), for substantially the same reasons as set forth above with respect to claim 72. That is, whether considered alone or in combination the references fail to teach or suggest an absorbent article having discrete dots of photoluminescent ink interspersed with the discrete dots of non-photoluminescent ink in the overlapping region of the

graphic.

Claims 100 and 104-119 depend directly or indirectly from amended claim 99 and are submitted to be patentable over the references of record for the same reasons as claim 99.

Claims 110 and 112 recite features similar to those recited in claims 84 and 86, respectively. Accordingly, claims 110 and 112 are submitted to be further patentable over Olson et al. and Demers et al. for substantially the same reasons as set forth above with respect to claims 84 and 86.

Claim 120

Amended claim 120 is directed to an absorbent article comprising a liner, an outer cover and an absorbent body disposed between the liner and the outer cover, the outer cover at least in part comprising a substrate having a graphic thereon, said graphic comprising a colored non-photoluminescent region and a photoluminescent region, at least a portion of the non- photoluminescent region and at least a portion of the photoluminescent region being in overlapping relationship with each other so as to define an overlapping region of said graphic wherein when the overlapping region is exposed to light sufficient to cause luminescence of the photoluminescent region said at least a portion of the photoluminescent region luminesces, the non-photoluminescent region being defined by a plurality of discrete dots of a non- photoluminescent ink being applied to the substrate, the photoluminescent region being defined by a plurality of discrete dots of a photoluminescent ink applied to the substrate, the discrete dots of photoluminescent ink being interspersed with the discrete dots of non- photoluminescent ink in the overlapping region of the graphic.

Amended claim 120 is submitted to be nonobvious in view of

and patentable over the references of record, and in particular U.S. Patent No. 6,645,190 (Olson et al.) in view of WO 98/40223 (Demers et al.), for substantially the same reasons as set forth above with respect to claim 72. That is, whether considered alone or in combination the references fail to teach or suggest an absorbent article having the discrete dots of photoluminescent ink interspersed with the discrete dots of non-photoluminescent ink in the overlapping region of the graphic.

Claim 121 depends from amended claim 120 and is submitted to be patentable over the references of record for the same reasons as claim 120.

Claim 122

Amended claim 122 is directed to an absorbent article comprising a liner, an outer cover and an absorbent body disposed between the liner and the outer cover, the outer cover at least in part comprising a first substrate, a second substrate in overlaid relationship with the first substrate, and a graphic comprising a colored non-photoluminescent region and a photoluminescent region, at least a portion of the colored non-photoluminescent region and at least a portion of the photoluminescent region being in overlapping relationship with each other so as to define an overlapping region of said graphic wherein when said overlapping region is exposed to light sufficient to cause luminescence of the photoluminescent region, said portion of the photoluminescent region luminesces, one of said first and second substrates having the colored non-photoluminescent region thereon and the other one of said first and second substrates having the photoluminescent region thereon, the non-photoluminescent region being defined by a plurality of discrete dots of a non-photoluminescent ink being

applied to one of said first and second substrates, the photoluminescent region being defined by a plurality of discrete dots of a photoluminescent ink applied to other one of said first and second substrates, the discrete dots of photoluminescent ink being interspersed with the discrete dots of non-photoluminescent ink in the overlapping region of the graphic.

Amended claim 122 is submitted to be nonobvious in view of and patentable over the references of record, and in particular U.S. Patent No. 6,645,190 (Olson et al.) in view of WO 98/40223 (Demers et al.), for substantially the same reasons as set forth above with respect to claim 72. That is, whether considered alone or in combination the references fail to teach or suggest an absorbent article having the discrete dots of photoluminescent ink interspersed with the discrete dots of non-photoluminescent ink in the overlapping region of the graphic.

Claims 123 and 124 depend from amended claim 122 and are submitted to be patentable over the references of record for the same reasons as claim 122.

CONCLUSION

In view of the above, applicants respectfully request favorable consideration and allowance of claims 72, 73, 77-100, and 104-124 as now presented.

The Commissioner is hereby authorized to charge any fee deficiency in connection with this Amendment B to Deposit Account Number 19-1345 in the name of Senniger Powers.

Respectfully submitted,



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